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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,452	09/05/2003	Frank Taormina	PD-980042D	1452

20991 7590 09/15/2006

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PATENT DOCKET ADMINISTRATION RE/R11/A109
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EXAMINER

DINH, TIEN QUANG

ART UNIT PAPER NUMBER

3644

DATE MAILED: 09/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/657,452

Applicant(s)

TAORMINA ET AL.

Examiner

Tien Dinh

Art Unit

3644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 20 is/are pending in the application.
- 4a) Of the above claim(s) 1-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-18 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-15 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Draim (5979832) in view of Densmore et al and McLeod.

Draim discloses at least four position adjustable satellites that are on MEO and on the equatorial plane and spaced apart but is silent on the fixed one-dimensional antenna and the two dimensional tracking antenna. However, Densmore et al teaches that two dimensional tracking antenna on a ground terminal is well known. McLeod discloses that one dimensional antenna on a ground terminal is well known.

It would have been obvious to one skilled in the art to have used fixed one-dimensional antenna and the two dimensional tracking antenna with the ground terminal in Draim's system as taught by Densmore et al and McLeod to allow the communication system to send information to desired spots and to keep track of the whole satellite system.

Please note that Draim discloses satellites that are spaced apart that other satellites can be interleaved therebetween.

Please note that the ground terminal being fixed is well known. Please also that a terminal can be fixed since this merely involves routine method that one skilled in the art can use to make sure the terminal doesn't move.

Please note that ground terminal that provides network operational control/satellite position control/communication link is well known in this day and age. One skilled would have used ground terminal that provides network operational/satellite position control to allow the satellite to safely and efficiently provide signals to the desired spot.

Claims 8-18, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stuart et al in view of Densmore et al and McLeod.

Stuart et al discloses at least four position adjustable satellites that are on MEO and on the equatorial plane and spaced apart but is silent on the fixed one-dimensional antenna and the two dimensional tracking antenna. However, Densmore et al teaches that two dimensional tracking antenna on a ground terminal is well known. McLeod discloses that one dimensional antenna on a ground terminal is well known.

It would have been obvious to one skilled in the art to have used fixed one-dimensional antenna and the two dimensional tracking antenna with the ground terminal in Stuart et al's system as taught by Densmore et al and McLeod to allow the communication system to send information to desired spots and to keep track of the whole satellite system.

Please note that Stuart et al discloses satellites that are spaced apart that other satellites can be interleaved therebetween.

Please also note that the ground terminal being fixed is well known. Please also that a terminal can be fixed since this merely involves routine method that one skilled in the art can use to make sure the terminal doesn't move.

Please also note that ground terminal that provides network operational control/satellite position control/communication link is well known in this day and age. One skilled would have used ground terminal that provides network operational/satellite position control to allow the satellite to safely and efficiently provide signals to the desired spot.

Please note that there is a second plurality of satellites interleaved between the four satellites to increase the elevation angle. See figures 14-15. The second plurality of satellites are inclined.

Response to Arguments

The examiner would like to point that Draim was cited in the IDS 9/5/03. The examiner would like to apologize for any confusion. As for the arguments on the Densmore reference, please note that the use of MEO is actually considered by Stuart et al. They used examples of an orbit of 800-1852 km but they have also disclosed that an orbit that is below 23,000 miles could also be used (see column 9, lines 19-25).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

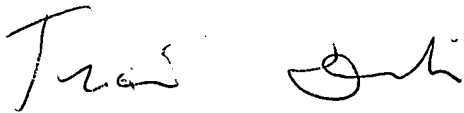
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tien Dinh whose telephone number is 571-272-6899. The examiner can normally be reached on 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 571-272-7045. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3644

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TD

A handwritten signature in black ink, appearing to read "Tren" followed by a stylized flourish or second name.